HYPERTROPHIED TONSILS INTERFERING WITH THE ACTION OF THE PALATE AND CAUSING DEFECTIVE SPEECH.*

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One of the many objections offered to the removal of the faucial tonsils is the fact that the operation is liable to be injurious to the voice and speech, but little reference has been made to the fact that both the voice and speech may be impaired by not doing the operation or by leaving the tonsils intact.

I have previously called attention to the effect upon the palate of hypertrophied and degenerated tonsillar masses, the larger ones, by reason of their bulk and consequent pressure upon the pillars, interfering with the action of the palate and the smaller, degenerated and catarrhal masses, by reason of their sepsis and by the spread of their infection, appearing to so obtund the nervous mechanism of the palate as to cause a sluggish or paretic action of its muscles.

The effect upon the speech is similar to that of insufficiency of the palate from other causes, such as a cleft palate or other forms of paralysis.

The palate is a far more important organ in relation to the human economy than it is commonly supposed to be, and its function in phonation and articulation is not very generally understood. The palate is a movable organ and it is composed largely of muscles which have their attachments in other movable organs of voice and speech, notably the larynx and tongue. The palato-pharyngii muscles have attachments in the superior cornua of the thyroid cartilage, and thus they have been called thyroid tilting and cord stretching muscles in the production of voice. They are peculiarly well adapted to the performance of this function by reason of their location in the pharynx and the upward and forward direction of their pulling force when the levator muscles are in contraction; and anything that interferes with this action of the palatal muscles, even in the slightest degree, must have its injurious effect upon the character of the voice.

Moreover, another important function of the palate, and one that appears chiefly in articulation, is what has been called a valvular function, it being for the purpose of closing the air passage from the pharynx to the nostrils during certain of the explosive sounds of speech. A complete closure of this valve fails to take place in almost all cases of cleft palate even after a fairly successful operation has been performed, and it fails to take place also in various forms of paralysis of the levator and other muscles of the palate. The failure of this closure in a post-operative cleft-palate case is due to a lack of sufficient tissue to form the valve itself, and to a lack of sufficient contractile power in the muscles owing to cicatricial formations; and the failure of the valvular closure in paretic conditions of the palate, of course, is due entirely to the muscular insufficiency, which appears in varying degrees all the way from a mere sluggish action to a complete paralysis of the palatal muscles.

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*Read before the Section on Otology and Laryngology of the College of Physicians, Philadelphia, November, 1912.

There are two conditions of the palate which accompany or follow diseases of the faucial and pharyngeal tonsils. These are: (1) a hypersensitive or hyperesthetic condition of the muscles, and (2) an anesthetic condition, the former probably being the first or more acute stage of infection, and the latter a more profound and chronic stage. On the other hand, I have found the hyperesthetic condition predominating in those cases having degenerated faucial tonsils, which on account of their markedly septic condition produce a highly congested pharynx, while the anesthetic and slightly paretic palate seems to accompany the hypertrophied tonsils, or those which interfere with the motility of the palate in a purely mechanical way.

The patient whom I shall show you is one illustrating this latter condition in a very marked manner, the tonsils themselves being obstructive because of their size rather than septic on account of disease or degeneration. Moreover, they are unusually large in their antero-posterior diameter, thus bowing the palato-pharyngii and palato-linguo muscles during their action in speech-production, and interfering to such an extent as to render the closure of the palatal valve quite impossible even when the levators are contracted to their utmost. This is a good illustration, therefore, of obstructive faucial tonsils interfering with the action of the palate and causing the characteristic defects of speech and voice.

The boy had formerly a good singing voice, but during the last few years he has been obliged to give up singing, and his speech, as you will observe, is defective chiefly because in the explosive consonants, in which the palatal valve should be closed, it remains open and there is an escape of breath through the nose. The effect is somewhat similar to that of a leaky exhaust valve in a gasoline engine.

The treatment of this condition would seem to me to be a removal of at least a sufficient amount of tonsillar tissue to permit of a freer action of the palatal muscles. My own practice is to do a complete tonsillectomy only in those cases in which there is a marked degenerative and catarrhal condition of the tonsils with thickening of the plica and capsule generally; but in those cases in which there is mere hypertrophy of the tonsillar masses I am of the opinion that a more or less thorough removal of the tonsillar tissue only, leaving the capsule intact, although the more difficult, is the more desirable operation so far as the speech and voice are concerned, because the resultant motility of the palate is better than it is in those cases following complete extra-capsular tonsillectomy, in which we are liable to have cicatricial adhesions and contractions. This, however, is a subject for discussion, and a most interesting one because it includes the whole question of so-called tonsillotomy vs. tonsillectomy.

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Prevention of Adenoids. WM. A. BRADY, *Med. Rec.*, May 24, 1913.

The cause of adenoid hypertrophy in children, according to the author's deduction, is lack of fresh air and improperly and overheated living rooms. Weather-phobia and excessive indoor life in overheated rooms produces the soil upon which adenoids develop. Urge the children to play out of doors in all kinds of weather and send them to school where the open-air idea is practiced. The family should be taught to acclimate themselves to living rooms where the temperature is from 60° to 65° throughout the winter.

LEDERMAN.

Radio-Active Substance in Treatment of Morbid Conditions of Mouth and Teeth. M. LEVY, *Deut. Med. Wchnschr.*, June 5, 1913.

In cases of psoriasis of the mucosa of the mouth, in pyorrhea alveolaris, loosening of the teeth without pus, marginal gingivitis, leucoplakia of the tongue and mouth, dental fistula, and stomatitis ulcerosa, Levy found this therapy to be very effective. ED.